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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,299	04/09/2001	Christian May	GR 98 P 2895 P	6889

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EXAMINER
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SON, LINH L D

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/829,299	<b>Applicant(s)</b> MAY, CHRISTIAN	
	<b>Examiner</b> Linh Son	<b>Art Unit</b> 2135	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>05/07/2001</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuo et al, US Patent No. 6003134, hereinafter '134.

3. As per claim 1, "A method of preventing stack manipulation attacks during function calls, which comprises, in an event of a call of an unsafe function defined in a given stack area, restricting stack access by hardware to the given stack area of the unsafe function" is taught in '134 (Col 10 lines 42-45, Col 11 lines 48-60, and Col 12 lines 1-18).

4. As per claim 2, "The method according to claim 1, wherein the step of restricting stack access comprises storing a reference to a stack frame of a calling function before the call of the unsafe function" is taught in '134 (Col 11 lines 35-38, and Col 12 lines 1-6).

5. As per claim 3, "The method according to claim 2, which comprises providing a mechanism preventing the called function from being able to access the value of the reference, the stack frame, and all data lying before that stack frame" is taught in '134 (Col 12 lines 7-10).

6. As per claim 4, "The method according to claim 1, which comprises providing a protective mechanism to ensure that the stack pointer does not go beyond the valid stack area of the called function" is taught in '134 (Col 12 lines 7-18).

7. As per claim 5, "The method according to claim 1, which comprises restoring the stack to an original state upon returning from an unsafe function" is taught in '134 (Col 12 lines 7-18).

8. As per claim 6, "The method according to claim 1, which comprises, in an event of a function call, initially reserving a memory area on the stack for function data to be protected" is taught in '134 (Figure 3, Steps 4 and 5), and "thereafter optionally placing function arguments on the stack, and placing the reference, lying in the protected area, to the stack frame of the calling function on the previously reserved area of the stack, and writing the reference to the stack frame of the called function into the protected area" is taught in '134 (Figure 3, Steps 5-6 and Col 11 lines 35-47).

**Conclusion**

9. Any inquiry concerning this communication from the examiner should be directed to Linh Son whose telephone number is (703)-305-8914.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Kim Y. Vu can be reached at (703)-305-4393. The fax numbers for this group are (703)-872-9306 (official fax). Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703)-305-9600.

11. Please notice. Due to the Office moving, the telephone numbers above will only be valid until October 15<sup>th</sup> of 2004. After that, the follow list of numbers will be valid:

Examiner: (571) 272-3856.

Kim Y. Vu: (571) 272-3859

Receptionist : (571) 272-2100

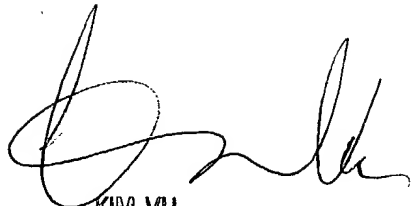
12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval IPAIR.I system. Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR system, see <http://pzd-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Linh LD Son**

**Patent Examiner**



**KIM VU**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 210**